What is claimed is:

1. A method, comprising the steps of:

processing voltage waveform data associated with a switching device to determine switching edge and slope parameters for each of a plurality of switching cycles;

identifying those portions of said voltage waveform data associated with switch state transition portions of said plurality of switching cycles;

calculating, for a plurality of said identified switch state transition portions, respective peak power levels using portions of said voltage waveform data temporally corresponding to said plurality of identified switch state transitions, and portions of current waveform data associated with said switching device temporally corresponding to said plurality of identified switch state transitions.

2. The method of claim 1, further comprising the step of:

identifying those switch state transition portions associated with peak power level excursions beyond at least one threshold level representing a range of peak power values used for sorting said peak power level excursions.

3. The method of claim 1, further comprising the step of:

displaying imagery representing power levels associated with at some of said plurality of identified switch state transition portions of said switching cycles.

4. The method of claim 2, further comprising the step of:

displaying imagery representing power levels associated with at some of said plurality of identified switch state transition portions of said switching cycles, wherein said switch state transition portions having associated with them peak power level excursions beyond a first threshold level are emphasized by at least one of a luminance parameter, a chrominance parameter and an icon.

5. The method of claim 3, further comprising the step of:

associating a first cursor with a switch on transition and associating a second cursor with a corresponding switch off transition; and

calculating at least one of an energy parameter and a time parameter associated with waveform data bounded by said first and second cursors.

6. The method of claim 5, further comprising the steps of:

moving, in response to user iteration, said first and second cursors between consecutive pairs of corresponding switch on and switch off transitions; and

calculating at least one of an energy parameter and a time parameter associated with waveform data bounded by said first and second cursors at least one of said consecutive pairs of corresponding switch on and switch off transitions.

7. The method of claim 3, further comprising the steps of:

associating a cursor with a user selected peak power signal value; and

calculating at least one of a peak power signal index and a peak power signal value within a zone proximate said selected peak power signal value.

8. The method of claim 7, further comprising the step of:

adapting a size parameter of said zone in response to user interaction.

9. The method of claim 1, further comprising the step of:

acquiring said voltage and current waveform data via respective acquisition channels of a signal processing device.

10. The method of claim 9, wherein said signal processing device comprises one of a digital storage oscilloscope (DSO) and a data acquisition module in communication with a computing device.

11. An apparatus, comprising:

means for processing voltage waveform data associated with a switching device to determine switching edge and slope parameters for each of a plurality of switching cycles;

means for identifying those portions of said voltage waveform data associated with switch state transition portions of said plurality of switching cycles;

means for calculating, for a plurality of said identified switch state transition portions, respective peak power levels using portions of said voltage waveform data temporally corresponding to said plurality of identified switch state transitions, and portions of current waveform data associated with said switching device temporally corresponding to said plurality of identified switch state transitions.

12. The apparatus of claim 11, further comprising:

means for identifying those switch state transition portions associated with peak power level excursions beyond at least one threshold level representing a range of peak power values used for sorting said peak power level excursions.

13. The apparatus of claim 11, further comprising:

means for displaying imagery representing power levels associated with at some of said plurality of identified switch state transition portions of said switching cycles.

14. The apparatus of claim 12, further comprising:

means for displaying imagery representing power levels associated with at some of said plurality of identified switch state transition portions of said switching cycles, wherein said switch state transition portions having associated with them peak power level excursions beyond a first threshold level are emphasized by at least one of a luminance parameter, a chrominance parameter and an icon.

15. The apparatus of claim 13, further comprising:

means for associating a first cursor with a switch-on transition and associating a second cursor with a corresponding switch-off transition; and

means for calculating at least one of an energy parameter and a time parameter associated with waveform data bounded by said first and second cursors.

16. The apparatus of claim 15, further comprising:

means for moving, in response to user iteration, said first and second cursors between consecutive pairs of corresponding switch on and switch off transitions; and

means for calculating at least one of an energy parameter and a time parameter associated with waveform data bounded by said first and second cursors at least one of said consecutive pairs of corresponding switch on and switch off transitions.

17. The apparatus of claim 13, further comprising:

means for associating a cursor with a user selected peak power signal value; and

means for calculating at least one of a peak power signal index and a peak power signal value within a zone proximate said selected peak power signal value.

18. The apparatus of claim 17, further comprising:

means for adapting a size parameter of said zone in response to user interaction.

19. The apparatus of claim 11, further comprising:

means for acquiring said voltage and current waveform data via respective acquisition channels of a signal processing device.

20. The apparatus of claim 19, wherein said signal processing device comprises one of a digital storage oscilloscope (DSO) and a data acquisition module in communication with a computing device.